

SCANNING PROBE BASED LITHOGRAPHIC ALIGNMENT

ABSTRACT

The lithographic process described herein involves aligning a patterned mold with respect to an alignment mark that is disposed on a substrate based upon interaction of a scanning probe with the alignment mark. By this method, the patterned mold may be aligned to an atomic accuracy (e.g., on the order of 10 nm or less), enabling nanometer-scale devices to be fabricated. A device formed by this lithographic method and a system for implementing this lithographic method with alignment also are described.